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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,320

04/13/2005

Yuuzou Muramatsu

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EXAMINER

WALKE, AMANDA C

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

03/19/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,320	<b>Applicant(s)</b> MURAMATSU, YUUZOU	
	<b>Examiner</b> Amanda C. Walke	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (2002/0039651) in view of Terauchi et al (JP 2002-194250 in view of its English language translation).

Murata disclose a film for a display (plasma, LCD, CRT, EL, etc.) comprising a transparent substrate, a high refractive index coating, and a low refractive index coating. The high refractive index coating comprises an acrylic resin and an oxide particle of titanium, zinc, antimony, tin, zirconium, or aluminum ([0028]). The low refractive index layer comprises silica or magnesium fluoride particles of 5 to 30 nm ([0029]-[0032]). The high refraction index layer may comprise various acrylic, vinyl, styrene resins or the like, and may comprise additives employed in the hardcoat layer of the reference. The hardcoat employs multifunctional (meth)acrylates (preferred) such as trimethylolpropane tri(meth)acrylate (instant claim 13; [0055]). The reference fails to specifically point out acrylic resins that are useful in the invention.

Terauchi et al disclose an active energy ray-curable coating composition curable by irradiation with an active energy ray even in the case of a single layer or a relatively thin film thickness and capable of forming a coating film excellent in hardness, abrasion resistance and transparency and, if required, excellent further in antistaticity. The active energy ray-curable

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coating composition comprises a polyfunctional acrylate (A) bearing in the molecule at least 6 acryloyl groups and no alkylene ether group, an acrylate (B) bearing in the molecule 2-5 acryloyl groups and no alkylene ether group, an acrylate (C) bearing in the molecule an acryloyl group and an alkylene ether group, and a (meth)acrylic polymer (D) bearing in the molecule an acryloyl group and/or a methacryloyl group, the weight ratio of (A)-(D) is such that (A):(B)=20:80 to 70:30, (C):(D)=10:90 to 90:10 and  $((A)+(B))/((C)+(D))=65:35$  to 95:5 (abstract; [0014], [0040]). According to section [0023], C of the reference corresponds to the instant A, and in section [0021], it can be determined that the instant B is reference B. Given the data above, it appears that the total amount of B and C would be at least 30% of the total and that the ratio of the two would fall within the instantly claimed range (20:80 to 80:20). The composition also comprises a binder polymer (F) and inorganic filler particle that may be silica,  $\text{TiO}_2$ , the tin oxide, zirconium oxide, magnesium fluoride, antimony oxide, a zinc oxide, tungstic oxide, and others (G; [0042]).

The material is cured upon coating using electron beam, gamma, beta, or alpha rays, or UV ([0046]).

It would have been obvious to one of ordinary skill in the art to prepare the material of the reference choosing to employ the resins B and C in amounts falling within the scope of the instant claim limitations.

Given the teachings of the references it would have been obvious to one of ordinary skill in the art to prepare the material of Murata choosing to employ the known monomers of Terauchi et al in the high refractive index layer of Murata in combination with the multifunctional (meth)acrylates).

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4. Claims 3, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (2002/0039651) in view of Terauchi et al and Maeda et al (4,572,888).

Murata and Terauchi et al have been discussed above. The reference fails to specifically point out acrylic resins that are useful in the invention.

Maeda et al disclose a UV sensitive photopolymerizable resin comprising (meth)acrylic resins such as many of those mentioned to be useful by Murata. In addition to those listed by Murata, the reference teaches that other known and useful acrylic unsaturated compounds include the ethylene oxide adduct of trimethylol propane triacrylate. Its use increases the adhesive properties of the material.

Given the teachings of the references it would have been obvious to one of ordinary skill in the art to prepare the material of Murata in view of Terauchi et al choosing to employ the known monomer of Maeda et al.

5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fails to fairly teach or suggest the mixture of claim 4.

### ***Response to Arguments***

3. Applicant's arguments filed 11/17/08 have been fully considered but they are not persuasive. Applicant has argued that the Murata et al reference fails to specifically teach the use of a monomer of type B, and argues that the reference includes a long list and one of ordinary skill in the art would not have chosen B-1 to B-11 from that list. In paragraph [0055] of Murata et al, there is a list of suitable compounds, and at the end of the paragraph, the reference teaches

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that trifunctional or higher acrylate is chosen. The reference lists 14 multifunctional (meth)acrylates, including B-1, 3, 4, and 7, and of those 14, 8 are acrylates, therefore 4 out of 8 listed are those instantly claimed. Therefore it is the position of the examiner that one of ordinary skill in the art would have been clearly directed to employing a multifunctional acrylate such as B-1, 3, 4, or 7. With respect to the Maeda et al reference, the argument provided was that the reference did not remedy the argued deficiencies of the primary reference, however since the rejection based upon Murata is maintained, so is the rejection based upon the Maeda et al reference.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337.

The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amanda C Walke  
Primary Examiner  
Art Unit 1795

/Amanda C Walke/  
Primary Examiner, Art Unit 1795